

### **REMARKS/DISCUSSION OF ISSUES**

By this Amendment, Applicants cancel claims 17 and 19 without disclaimer of the underlying subject matter. Applicants also amend claims 15, 16 and 18, and add new claims 38 and 39. Accordingly, claims 15, 16, 18, 24-27 and 38-39 are pending in the application.

### **35 U.S.C. § 103**

The FINAL Office Action rejects claims 15, 16, 18, 24-27 under 35 U.S.C. § 103 over Simmonds et al. U.S. Patent 6,437,563 ("Simmonds") in view of Baselt U.S. Patent 5,981,297 ("Baselt").

Applicants respectfully submit that all of the pending claims are patentable over any combination of Simmonds and Baselt for at least the following reasons.

Among other things, the methods of claims 15, 16, 18, 24-27 all include generating a first AC magnetic field having a first frequency, and a second AC magnetic field having a second frequency different from the first frequency; demodulating an output signal of the magnetic sensor element to produce two detection signals corresponding to the first and second AC magnetic fields; and processing the two detection signals to determine the number and location of magnetic particles that are present.

Applicants respectfully submit that no combination of Simmonds and Baselt would ever produce a method including this combination of features.

Therefore, for at least these reasons, Applicants respectfully submit that claims 15, 16, 18, 24-27 are all patentable over the cited art. Accordingly, Applicants respectfully request that the rejections of claims 15, 16, 18, 24-27 be withdrawn and request that claims 15, 16, 18, 24-27 receive an early allowance.

### **NEW CLAIMS 38-39**

New claims 38-39 depend from claim 15 and are deemed patentable over the cited art for at least the reasons set forth above with respect to claim 15, and for the various novel features recited therein

**CONCLUSION**

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 15, 16, 18, 24-27 and 38-39, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283.0720 to discuss these matters.

Respectfully submitted,

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